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(54) VISUAL AND AUDIO INFORMATION PROVIDING SYSTEM

(57)Abstract:

PROBLEM TO BE SOLVED: To grasp the statistic positioning of broadcasting observed by each viewer by grasping the statistic visual and audio information of broadcasting real time by the viewer.

SOLUTION: A broadcasting receiver 3 functions as a terminal unit, and provides visual and audio broadcasting information representing the broadcasting during viewing and listening for a central unit 5. The unit 5 generates the statistic visual and audio information regarding the broadcasting during the broadcasting based on the

information collected from the multiple receivers 3. The generated statistic information is provided for the viewer by the receivers 3. The statistic information may be the audience rating of each channel. More preferably, the statistic information is the audience rating sequence of the channel during viewing and listening at each terminal. The missing of the program having good reputation by the viewer is easily avoided by knowing the real time audience rating sequence.

**\* NOTICES \***

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**CLAIMS**

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[Claim(s)]

[Claim 1]Two or more terminal units for providing each televiewer with viewing-and-listening statistical information which is statistical information on broadcast viewing and listening, Including central apparatus which communicate with said two or more terminal units, each of two or more of said terminal units, A viewing

information providing system characterized by what said central apparatus are provided with viewing-and-listening broadcast information that broadcast under viewing and listening is expressed, and said central apparatus generate viewing-and-listening statistical information about broadcast under broadcast based on viewing-and-listening broadcast information acquired from said two or more terminal units, and is provided to said two or more terminal units.

[Claim 2]A viewing information providing system, wherein said central apparatus provide information which expresses with a terminal unit of 1 viewership ranking of broadcast corresponding to viewing-and-listening broadcast information acquired from the terminal unit as said viewing-and-listening statistical information in the viewing information providing system according to claim 1.

[Claim 3]A viewing information providing system, wherein said terminal unit searches for viewership ranking of broadcast under viewing and listening based on information provided from said central apparatus and provides a televiewer with it in the viewing information providing system according to claim 1.

[Claim 4]Viewing information offer central apparatus which communicate with two or more terminal units for providing each televiewer with viewing-and-listening statistical information which is statistical information on broadcast viewing and listening, comprising:

A means to acquire viewing-and-listening broadcast information that broadcast under viewing and listening is expressed from each of two or more of said terminal units.

A means to generate viewing-and-listening statistical information about broadcast under broadcast based on viewing-and-listening broadcast information acquired from said two or more terminal units, and a means to provide generated viewing-and-listening statistical information to said two or more terminal units.

[Claim 5]Viewing information offer central apparatus providing information which expresses with a terminal unit of 1 viewership ranking of broadcast corresponding to viewing-and-listening broadcast information which the terminal unit sent in the viewing information offer central apparatus according to claim 4 as said viewing-and-listening statistical information.

[Claim 6]Viewing information offer central apparatus providing said two or more terminal units with information showing viewership ranking of two or more broadcasts which are under broadcast in the viewing information offer central apparatus according to claim 4 because of processing which searches for viewership ranking of broadcast under viewing and listening with each terminal unit.

[Claim 7]A viewing information providing terminal device which communicates with central apparatus for providing each televiewer with viewing-and-listening statistical information which is statistical information on broadcast viewing and listening, comprising:

A means to provide said central apparatus with viewing-and-listening broadcast information that broadcast under viewing and listening is expressed.

A means to acquire viewing-and-listening statistical information about broadcast under broadcast generated from said central apparatus based on viewing-and-listening broadcast information acquired from two or more terminals.

[Claim 8]A viewing information providing terminal device acquiring information which expresses viewership ranking of broadcast corresponding to viewing-and-listening broadcast information sent to said central apparatus in the viewing information providing terminal device according to claim 7 from said central apparatus.

[Claim 9]A viewing information providing terminal device acquiring information which expresses viewership ranking of two or more broadcasts which are under broadcast in the viewing information providing terminal device according to claim 7 from said central apparatus, searching for viewership ranking of broadcast under viewing and listening, and providing for a televiewer.

[Claim 10]They are the viewing information offer central apparatus which communicate with two or more terminal units for providing each televiewer with viewing-and-listening statistical information which is statistical information on broadcast viewing and listening, Viewing information offer central apparatus providing information which expresses viewership ranking of broadcast under viewing and listening corresponding to each terminal unit to each of two or more of said terminal units as said viewing-and-listening statistical information based on information showing viewership ranking of two or more broadcasts which are under broadcast.

[Claim 11]Are the viewing information offer central apparatus which communicate with two or more terminal units for providing each televiewer with viewing-and-listening statistical information which is statistical information on broadcast viewing and listening, and viewership ranking of broadcast under viewing and listening for processing for which it asks with each terminal unit, Viewing information offer central apparatus providing said two or more terminal units with information showing viewership ranking of two or more broadcasts which are under broadcast.

[Claim 12]It is a viewing information providing terminal device for providing each

televiewer with viewing-and-listening statistical information which is statistical information on broadcast viewing and listening, A viewing information providing terminal device providing a televiewer with information showing viewership ranking of broadcast under viewing and listening generated based on information showing viewership ranking of two or more broadcasts which are under broadcast.

[Claim 13]A viewing information providing terminal device which acquires from the exterior information which expresses viewership ranking of two or more broadcasts which are under broadcast in the viewing information providing terminal device according to claim 12, and is characterized by searching for information showing viewership ranking of broadcast under viewing and listening based on acquired information and information showing broadcast under viewing and listening.

[Claim 14]A viewing information provision method by a viewing information providing system containing two or more terminal units for providing each televiewer with viewing-and-listening statistical information which is statistical information characterized by comprising the following on broadcast viewing and listening, and central apparatus which communicate with said two or more terminal units.

A step to which each of two or more of said terminal units provides said central apparatus with viewing-and-listening broadcast information that broadcast under viewing and listening is expressed.

A step which said central apparatus generate viewing-and-listening statistical information about broadcast under broadcast based on viewing-and-listening broadcast information acquired from said two or more terminal units, and is provided to said two or more terminal units.

[Claim 15]A viewing information provision method providing information which expresses with a terminal unit of 1 viewership ranking of broadcast corresponding to viewing-and-listening broadcast information acquired from the terminal unit from said central apparatus in the viewing information provision method according to claim 14 as said viewing-and-listening statistical information.

[Claim 16]A viewing information provision method, wherein said terminal unit searches for viewership ranking of broadcast under viewing and listening based on information provided from said central apparatus and provides for a televiewer in the viewing information provision method according to claim 14.

[Claim 17]A viewing information provision method characterized by comprising the following for providing each televiewer with viewing-and-listening statistical information which is statistical information on broadcast viewing and listening through

communication with two or more terminal units.

A step which acquires viewing-and-listening broadcast information that broadcast under viewing and listening is expressed from each of two or more of said terminal units.

A step which generates viewing-and-listening statistical information about broadcast under broadcast based on viewing-and-listening broadcast information acquired from said two or more terminal units, and a step which provides generated viewing-and-listening statistical information to said two or more terminal units.

[Claim 18]A viewing information provision method providing information which expresses with a terminal unit of 1 viewership ranking of broadcast corresponding to viewing-and-listening broadcast information which the terminal unit sent in the viewing information provision method according to claim 17 as said viewing-and-listening statistical information.

[Claim 19]A viewing information provision method providing said two or more terminal units with information showing viewership ranking of two or more broadcasts which are under broadcast in the viewing information provision method according to claim 17 because of processing which searches for viewership ranking of broadcast under viewing and listening with each terminal unit.

[Claim 20]A viewing information provision method characterized by comprising the following by a viewing information providing terminal device for providing each televiewer with viewing-and-listening statistical information which is statistical information on broadcast viewing and listening through communication with central apparatus.

A step which provides said central apparatus with viewing-and-listening broadcast information that broadcast under viewing and listening is expressed.

A step which acquires viewing-and-listening statistical information about broadcast under broadcast generated from said central apparatus based on viewing-and-listening broadcast information acquired from two or more terminals.

[Claim 21]A viewing information provision method acquiring information which expresses viewership ranking of broadcast corresponding to viewing-and-listening broadcast information sent to said central apparatus in the viewing information provision method according to claim 20 from said central apparatus.

[Claim 22]A viewing information provision method acquiring information which expresses viewership ranking of two or more broadcasts which are under broadcast in

the viewing information provision method according to claim 20 from said central apparatus, searching for viewership ranking of broadcast under viewing and listening, and providing for a televiewer.

[Claim 23]It is a viewing information provision method for providing each televiewer with viewing-and-listening statistical information which is statistical information on broadcast viewing and listening through communication with two or more terminal units, A viewing information provision method providing information which expresses viewership ranking of broadcast under viewing and listening corresponding to each terminal unit to each of two or more of said terminal units as said viewing-and-listening statistical information based on information showing viewership ranking of two or more broadcasts which are under broadcast.

[Claim 24]Through communication with two or more terminal units, are a viewing information provision method for providing each televiewer with viewing-and-listening statistical information which is statistical information on broadcast viewing and listening, and viewership ranking of broadcast under viewing and listening for processing for which it asks with each terminal unit, A viewing information provision method providing said two or more terminal units with information showing viewership ranking of two or more broadcasts which are under broadcast.

[Claim 25]It is a viewing information provision method by a viewing information providing terminal device for providing each televiewer with viewing-and-listening statistical information which is statistical information on broadcast viewing and listening, A viewing information provision method providing a televiewer with information showing viewership ranking of broadcast under viewing and listening generated based on information showing viewership ranking of two or more broadcasts which are under broadcast.

[Claim 26]A viewing information provision method which acquires from the exterior information which expresses viewership ranking of two or more broadcasts which are under broadcast in the viewing information provision method according to claim 25, and is characterized by searching for information showing viewership ranking of broadcast under viewing and listening based on acquired information and information showing broadcast under viewing and listening.

[Claim 27]A program executed by computer in order to provide each televiewer with viewing-and-listening statistical information which is information characterized by comprising the following with broadcast viewing and listening statistical through communication with two or more terminal units.

A step for acquiring viewing-and-listening broadcast information that broadcast under

viewing and listening is expressed from each of two or more of said terminal units.  
A step which generates viewing-and-listening statistical information about broadcast under broadcast based on viewing-and-listening broadcast information acquired from said two or more terminal units, and a step for providing generated viewing-and-listening statistical information to said two or more terminal units.

[Claim 28]A program making said computer perform processing for providing information which expresses viewership ranking of broadcast corresponding to viewing-and-listening broadcast information which the terminal unit sent towards a terminal unit of 1 in the program according to claim 27 as said viewing-and-listening statistical information.

[Claim 29]A program making said computer perform processing for providing said two or more terminal units with information showing viewership ranking of two or more broadcasts which are under broadcast in the program according to claim 27 because of processing which searches for viewership ranking of broadcast under viewing and listening with each terminal unit.

[Claim 30]A program executed by computer as a viewing information providing terminal device in order to provide each televiewer with viewing-and-listening statistical information which is information characterized by comprising the following with broadcast viewing and listening statistical through communication with central apparatus.

A step for providing said central apparatus with viewing-and-listening broadcast information that broadcast under viewing and listening is expressed.

A step for acquiring viewing-and-listening statistical information about broadcast under broadcast generated from said central apparatus based on viewing-and-listening broadcast information acquired from two or more terminals.

[Claim 31]A program making said computer perform processing for acquiring information which expresses viewership ranking of broadcast corresponding to viewing-and-listening broadcast information sent to said central apparatus in the program according to claim 30 from said central apparatus.

[Claim 32]A program acquiring information which expresses viewership ranking of two or more broadcasts which are under broadcast in the program according to claim 30 from said central apparatus, searching for viewership ranking of broadcast under viewing and listening, and making said computer perform processing for providing for a televiewer.

[Claim 33]It is a program executed by computer through communication with two or more terminal units in order to provide each televiewer with viewing-and-listening statistical information which is statistical information on broadcast viewing and listening, A program making said computer perform processing for providing information which expresses viewership ranking of broadcast under viewing and listening corresponding to each terminal unit to each of two or more of said terminal units as said viewing-and-listening statistical information based on information showing viewership ranking of two or more broadcasts which are under broadcast.

[Claim 34]It is a program executed by computer through communication with two or more terminal units in order to provide each televiewer with viewing-and-listening statistical information which is statistical information on broadcast viewing and listening, A program making said computer perform processing for providing said two or more terminal units with information showing viewership ranking of two or more broadcasts which are under broadcast because of processing which searches for viewership ranking of broadcast under viewing and listening with each terminal unit.

[Claim 35]In order to provide each televiewer with viewing-and-listening statistical information which is statistical information on broadcast viewing and listening, it performs by computer as a viewing information providing terminal device, and is a program, A program making said computer perform processing for providing a televiewer with information showing viewership ranking of broadcast under viewing and listening generated based on information showing viewership ranking of two or more broadcasts which are under broadcast.

[Claim 36]Information which acquired from the exterior information which expresses viewership ranking of two or more broadcasts which are under broadcast in the program according to claim 35, and acquired it, A program making said computer perform processing which searches for information showing viewership ranking of broadcast under viewing and listening based on information showing broadcast under viewing and listening.

[Claim 37]A recording medium which stored the program according to any one of claims 27 to 36 and in which reading in a computer is possible.

[Claim 38]Claims 1-3 are the viewing information providing systems providing viewing-and-listening statistical information according to attribution information of a televiewer under viewing and listening in a viewing information providing system of a statement either.

[Claim 39]A viewing information providing system providing viewing-and-listening statistical information according to an old viewing history of a televiewer under

viewing and listening in the viewing information providing system according to any one of claims 1 to 3.

[Claim 40]Viewing information offer central apparatus providing viewing-and-listening statistical information according to attribution information of a televiewer under viewing and listening in the viewing information offer central apparatus according to claim 4, 5, 6, 10, or 11.

[Claim 41]Viewing information offer central apparatus providing viewing-and-listening statistical information according to an old viewing history of a televiewer under viewing and listening in the viewing information offer central apparatus according to claim 4, 5, 6, 10, or 11.

[Claim 42]A viewing information providing terminal device providing viewing-and-listening statistical information according to attribution information of a televiewer under viewing and listening in the viewing information providing terminal device according to claim 7, 8, 9, 12, or 13.

[Claim 43]A viewing information providing terminal device providing viewing-and-listening statistical information according to an old viewing history of a televiewer under viewing and listening in the viewing information providing terminal device according to claim 7, 8, 9, 12, or 13.

[Claim 44]A viewing information provision method providing viewing-and-listening statistical information according to attribution information of a televiewer under viewing and listening in the viewing information provision method according to any one of claims 14 to 26.

[Claim 45]A viewing information provision method providing viewing-and-listening statistical information according to an old viewing history of a televiewer under viewing and listening in the viewing information provision method according to any one of claims 14 to 26.

[Claim 46]A program providing viewing-and-listening statistical information according to attribution information of a televiewer under viewing and listening in the program according to any one of claims 27 to 36.

[Claim 47]A program providing viewing-and-listening statistical information according to an old viewing history of a televiewer under viewing and listening in the program according to any one of claims 27 to 36.

[Claim 48]A recording medium which stored the program according to claim 47 or 48 and in which reading in a computer is possible.

2.\*\*\*\* shows the word which can not be translated.

3.In the drawings, any words are not translated.

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## DETAILED DESCRIPTION

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[Detailed Description of the Invention]

[0001]

[Field of the Invention]This invention relates to the system for providing the information about the broadcast under broadcast especially about the system for providing each televiewer with the viewing-and-listening statistical information which is statistical information on broadcast viewing and listening.

[0002]

[Description of the Prior Art]As statistical information on broadcast viewing and listening, viewership is used most frequently as everyone knows. Viewership is used by a broadcasting station, a program production person, advertising authorized personnel, etc. as a barometer showing the reputation about the popularity and fun of a program. Viewership is information interesting also for a televiewer. Popularity has gathered for the corner which introduces the viewership of the past program also in the information program of television.

[0003]Conventionally, the information on viewership is provided as follows. That is, the receiver of the suitable house of a number is equipped with the device which detects the channel under viewing and listening. The information on the detected channel is collected. Viewership is called for and announced from the collected information. A

televviewer is provided with viewership through a newspaper article of the next day, for example. Or it is introduced to a televviewer in the information program of television.

[0004]

[Problem(s) to be Solved by the Invention]As mentioned above, through a newspaper article of the next day etc., the statistical information represented by viewership is provided, after broadcast is completed. That is, only the information concerning [ a televviewer ] the past program is acquired. Temporarily, if the statistical information about the broadcast under present broadcast can be known in real time, it will serve as more interesting information for a televviewer. And since the televviewer does not need to overlook a reputable program, he is considered that such real time information is useful for a televviewer.

[0005]When a real time offer of information becomes possible, a televviewer will become the information that such positioning is also interesting for a televviewer, if statistical positioning of the broadcast which he is watching can be known. And it is thought that the information on such positioning enables evasion of overlooking of a reputable program still more easily.

[0006]this invention is made under the above-mentioned background, and comes out. The purpose is to provide the art in which a televviewer enables it to grasp the statistical information on viewing and listening in real time.

The further purpose of this invention is to provide the art in which a televviewer enables it to grasp statistical positioning of the broadcast which he is watching.

[0007]

[Means for Solving the Problem]A viewing information providing system of this invention contains two or more terminal units for providing each televviewer with viewing-and-listening statistical information which is statistical information on broadcast viewing and listening, and central apparatus which communicate with said two or more terminal units. A terminal unit may be formed in a receiver. Each of two or more of said terminal units provides said central apparatus with viewing-and-listening broadcast information that broadcast under viewing and listening is expressed. Based on viewing-and-listening broadcast information acquired from said two or more terminal units, said central apparatus generate viewing-and-listening statistical information about broadcast under broadcast, and provide it to said two or more terminal units. Thus, according to this invention, a televviewer can be provided with viewing-and-listening statistical information about broadcast under broadcast.

[0008]In this invention, broadcast provided with "broadcast under broadcast" towards a televviewer is said. "Broadcast under viewing and listening" means broadcast from

which each televiewer has received offer in two or more "broadcasts under broadcast." "Broadcast" may be expressed with a channel and may be expressed with a program. Broadcast may be specified in a form of other expressions, for example, a program of XX genre.

[0009]Viewing-and-listening statistical information is information on viewership, for example. In this invention, viewership of two or more broadcasts may only be provided. A system of this invention provides more preferably information which expresses viewership ranking of broadcast under viewing and listening as viewing-and-listening statistical information.

[0010]Information showing viewership ranking of broadcast under viewing and listening may be searched for with central apparatus. In this case, viewership ranking of each broadcast which is under broadcast is acquired from viewing-and-listening broadcast information acquired from two or more terminal units. Broadcast under viewing and listening about each terminal unit is specified from viewing-and-listening broadcast information. Then, information which expresses viewership ranking of broadcast under viewing and listening for each terminal unit is generated. A terminal unit is provided with generated information.

[0011]Information showing viewership ranking of broadcast under viewing and listening may be searched for with a terminal unit. In this case, information which expresses viewership ranking of two or more broadcasts which are under broadcast from central apparatus to each terminal unit is provided. Broadcast under viewing and listening is specified with a terminal unit. Information showing viewership ranking of specified broadcast is searched for and provided from information provided from central apparatus. The information which central apparatus provide should just express two or more viewership ranking. Viewership of each broadcast may be sufficient as this, the viewership ranking itself may be sufficient as it, the number of televiewers may be sufficient as it, and other information may be sufficient as it.

[0012]According to this invention, a televiewer can be provided with viewing-and-listening statistical information concerning broadcast under broadcast as mentioned above. According to this invention, a televiewer can obtain the new interesting information of viewership statistical information of broadcast under broadcast to a televiewer having obtained only viewership statistical information of the past broadcast conventionally.

[0013]Since only viewing-and-listening statistical information of the past broadcast is able to be obtained conventionally, reputation of another broadcast may get to know a televiewer well later rather than broadcast to which he viewed and listened. At this

time, a televiewer may think that what was necessary was just to have watched another program. On the other hand, since the televiewer can acquire statistical information on broadcast under broadcast according to this invention, it is not necessary to overlook reputable broadcast.

[0014]Especially a suitable system of this invention provides information showing viewership ranking of broadcast to which each televiewer is viewing and listening as mentioned above. A televiewer is provided with unprecedented interesting information [ say / viewership ranking of broadcast which he is watching ]. The televiewer can grasp easily how much reputation of broadcast which he is watching is in two or more broadcasts which are under broadcast. Therefore, the televiewer can avoid overlooking of reputable broadcast easily.

[0015]As mentioned above, viewership ranking of broadcast under viewing and listening may be searched for with central apparatus, and may be searched for with a terminal unit. Since the former should just present as it is information received in a terminal unit, a burden of processing with a terminal unit is considered to be advantageous with few points. Since the latter is good without providing information that it is individual for each terminal unit, with central apparatus, a burden of central apparatus is considered to be advantageous with few points.

[0016]A system of this invention provides viewing-and-listening statistical information according to attribution information of a televiewer under viewing and listening preferably. Attributes are age, sex, an address, a hobby, and family structure, for example. Viewing-and-listening statistical information which suits combination of two or more attributes may be provided.

[0017]Typically, central apparatus search for different viewing-and-listening statistical information according to an attribute. A televiewer's attribute is acquired from a terminal unit. A televiewer's attribute may be acquired beforehand and may be memorized. And central apparatus provide a terminal with viewing-and-listening statistical information corresponding to a televiewer's attribute. Or based on an attribute inputted by televiewer, based on an attribute memorized beforehand, a terminal unit may extract viewing-and-listening statistical information corresponding to a televiewer's attribute, and may provide for a televiewer out of viewing-and-listening statistical information provided from central apparatus.

[0018]Here, viewership ranking is preferably provided as viewing-and-listening statistical information. That is, viewership ranking corresponding to the attribute of a televiewer under viewing and listening is provided. For example, suppose that an attribute is age. When a televiewer is 40 years old, ranking in inside of viewership of a

televviewer in his 40's is provided, for example. For example, viewership ranking of a under [ broadcast for adults under broadcast ] may be provided. In this case, viewership ranking in inside of broadcast corresponding to a televviewer's attribute is provided. As mentioned above, two or more attributes may be used complexly. For example, viewership ranking of broadcast to which a televviewer in inside of a televviewer's of his twenties, a male, and single's viewership is viewing and listening is provided.

[0019]According to this invention, still more interesting information can be provided by providing information according to an attribute. The televviewer does not need to overlook reputable broadcast for televviewers with the same attribute as himself, therefore can avoid overlooking of useful broadcast more certainly for himself.

[0020]A system of this invention provides viewing-and-listening statistical information according to an old viewing history of a televviewer under viewing and listening preferably. Based on information on broadcast which a televviewer has so far watched, viewing-and-listening statistical information which suits a televviewer is provided. Typically, central apparatus acquire information showing a viewing history from a terminal unit. Viewing-and-listening broadcast information, including a channel etc., may be accumulated as a viewing history. And a broadcasting receiver is provided with viewing-and-listening statistical information based on a viewing history. Or a terminal unit may accumulate a viewing history and information with which a televviewer should be provided may be extracted out of information sent from central apparatus based on a viewing history. For example, a broadcasting genre which a televviewer likes is called for from a viewing history. And viewing-and-listening statistical information of broadcast under broadcast of the genre is provided. Also in this invention, it is preferred as viewing-and-listening statistical information to send viewership ranking.

[0021]According to this invention, still more interesting information can be provided by providing information according to a viewing history. The televviewer does not need to overlook what has a good reputation in broadcast which suits its viewing history, for example, broadcast which he often watches, therefore can avoid overlooking of useful broadcast more certainly for himself.

[0022]This invention is not limited to a mode of the above-mentioned viewing information providing system. Another mode of this invention is central apparatus and a terminal unit which constitute the above-mentioned system, for example. Another mode of this invention is an information service method by these systems and devices, and is a program which makes a computer perform such a method, and is the

recording medium which recorded such a program.

[0023]

[Embodiment of the Invention] Hereafter, the suitable embodiment of this invention is described with reference to drawings.

[0024] Drawing 1 shows the overall composition of the viewing-and-listening statistical information providing system of this embodiment. The viewing-and-listening statistical information providing system 1 is provided with the following.

Two or more broadcasting receivers 3.

Central apparatus 5.

Each broadcasting receiver 3 functions as a terminal unit of this invention. Each broadcasting receiver 3 communicates with the central apparatus 5 through the network N.

[0025] Drawing 2 is a functional block diagram showing the broadcasting receiver 3 of 1, and the composition of the central apparatus 5. The broadcasting receiver 3 has the antenna 10, the display 12, and the loudspeaker 14. The received output part 16 receives broadcast using the antenna 10, and outputs the received broadcast from the display 12 and the loudspeaker 14. According to this embodiment, health broadcast is received. The remote control communications department 18 receives the information which shows operation of the televiewer to the remote controller 20 by communication with the remote controller 20.

[0026] The center communications department 22 communicates between the central apparatus 3. According to this embodiment, the network N comprises the Internet and always sets the broadcasting receiver 3 under a connected state.

[0027] The viewing-and-listening broadcast offer-of-information part 24 provides the central apparatus 5 with the viewing-and-listening broadcast information that the broadcast under viewing and listening is expressed with the receiver 3, using the center communications department 22. According to this embodiment, the information showing a channel is used as viewing-and-listening broadcast information. The channel under viewing and listening is detected and the center communications department 22 is notified.

[0028] The viewing-and-listening statistical information acquisition part 26 acquires the viewing-and-listening statistical information sent from the central apparatus 5. A televiewer is shown the acquired information using the display 14. Viewing-and-listening statistical information is the viewership of broadcast under broadcast in this embodiment.

[0029]Here, in this embodiment, "broadcast under broadcast" is broadcast provided towards many televiewers, and is broadcast under broadcasting (in this invention, broadcasting is used also with the broadcast not using an electric wave). On the other hand, when its attention is paid to "broadcast under viewing and listening" in two or more "broadcasts under broadcast" at each televiewer, the televiewer says the broadcast which has received offer. "Broadcast" is expressed with a channel as mentioned above at this embodiment.

[0030]"Broadcast under broadcast" may be called "broadcast under offer", or "offer broadcast", and "broadcast under viewing and listening" may also be called "viewing-and-listening broadcast." In this case, "viewing-and-listening broadcast (for example, channel)" is one of two or more "offer broadcasts (for example, channel)" (there may be plurality like a two-channel simultaneous view).

[0031]On the other hand, the terminal communications department 30 communicates with the broadcasting receiver 3 in the central apparatus 5. Although not shown in drawing 2, the terminal communications department 30 communicates with many broadcasting receivers 3 individually. The viewing-and-listening broadcast information acquisition section 32 acquires the channel information as viewing-and-listening broadcast information from each broadcasting receiver 3 using the terminal communications department 30. The information on the channel under viewing and listening is collected from many broadcasting receivers 3. The viewing-and-listening statistical information generation part 34 asks for the viewership of each channel from the collected information. The viewing-and-listening statistical information providing part 36 provides two or more broadcasting receivers 3 with the information on the viewership called for by the viewing-and-listening statistical information generation part 34 using the terminal communications department 30.

[0032]Next, with reference to drawing 2, operation of the viewing-and-listening statistical information providing system 1 of this embodiment is explained.

[0033]The viewing-and-listening broadcast information acquisition section 32 of the central apparatus 5 collects the information on the channel under viewing and listening from many broadcasting receivers 3 as mentioned above. Here, each broadcasting receiver 3 is asked about the channel under viewing and listening by the polling which used the terminal communications department 30. This inquiry is received by the center communications department 22 of the broadcasting receiver 3. In response to an inquiry, the viewing-and-listening broadcast offer-of-information part 24 specifies the channel under viewing and listening, and gives the center communications department 22 the information. The information on a channel is sent

to the central apparatus 5 from the center communications department 22.

[0034]The central apparatus 5 perform the above-mentioned processing among many broadcasting receivers 3. Thereby, the viewing-and-listening broadcast information acquisition section 32 acquires the channel under viewing and listening with many broadcasting receivers 3. The viewing-and-listening statistical information generation part 34 asks for the viewership of each channel from the collected information.

[0035]Viewership is calculated by the well-known method. The number of the receivers which view and listen to each channel is broken by this embodiment by the number of the receivers which were the targets of polling. When a receiver does not return a reaction to polling, the central apparatus 5 judge that the receiver is not viewing and listening to broadcast.

[0036]The viewing-and-listening statistical information providing part 36 of the central apparatus 5 sends the information on the computed viewership to the broadcasting receiver 3 using the terminal communications department 30. In the broadcasting receiver 3, it is received by the center communications department 22 and viewership is acquired by the viewing-and-listening statistical information acquisition part 26.

[0037]The above processing sets a suitable, comparatively short interval (for example, 10 minutes), and is carried out repeatedly. Therefore, the broadcasting receiver 3 as a terminal unit can obtain the viewership of the channel under broadcast.

[0038]A televiewer operates the remote controller 20 and demands the display of viewership. At this time, a televiewer demands a viewership display by pushing a button predetermined for having been installed in the remote controller 20, for example. This demand is received by the remote control communications department 18. In response to this, the viewership statistical information acquisition part 26 displays the information on viewership on the display 14.

[0039]Drawing 3 shows the example of the viewership information displayed on the display 14. In the example of drawing 3, the table showing the viewership of each channel is displayed on the corner of a screen. In a modification, only the viewership of the channel under viewing and listening may be displayed. At this time, each broadcasting receiver 3 may receive only the viewership of the channel under viewing and listening from the central apparatus 5 with that broadcasting receiver 3.

[0040]In the above, one embodiment of this invention was described. The above-mentioned embodiment provided viewership as viewing-and-listening statistical information. The following embodiment provides viewership ranking as still more useful viewing-and-listening statistical information.

[0041]Drawing 4 shows the viewing-and-listening statistical information providing system of this embodiment. The viewing-and-listening statistical information providing system 40 of drawing 4 has the almost same composition as drawing 2. As compared with drawing 2, processings by the viewing-and-listening statistical information generation part 42 of the central apparatus 5 differ.

[0042]The viewing-and-listening statistical information generation part 42 computes viewership based on the channel information collected from many broadcasting receivers 3. And the viewership ranking of each channel is searched for. It is expressed to what position viewership ranking has the large viewership of each channel.

[0043]The viewing-and-listening statistical information generation part 42 searches for the viewership ranking of the channel under viewing and listening for each broadcasting receiver 3. A certain broadcasting receiver 3 uses that X channel is under viewing and listening. The information which shows this X channel is a process in which it asks for viewership, and comes to hand through the network N from the viewing-and-listening broadcast offer-of-information part 24. Then, the viewership ranking of X channel is searched for. This viewership ranking is sent to the broadcasting receiver 3 by the viewing-and-listening statistical information providing part 36 through the terminal communications department 30.

[0044]Viewership ranking is acquired by the viewing-and-listening statistical information acquisition part 36. And viewership ranking is displayed on the display 12 according to a televiewer's demand.

[0045]Drawing 5 shows the example of the information which the broadcasting receiver 3 acquires from the central apparatus 5. In an example (a), the broadcasting receiver 3 acquires only the viewership ranking of the channel under viewing and listening. The broadcasting receiver 3 also acquires the viewership ranking of other channels under broadcast further in Example (b) and (c). Like a graphic display, the viewership ranking of the channel under viewing and listening is displayed on the display 12 using a different expression from the viewership ranking of other channels. As a different expression, a different color is adopted, for example.

[0046]In the above, another embodiment of this invention was described. According to this embodiment, viewership ranking was searched for after asking for viewership. However, viewership ranking may be directly searched for from the number of televiewers. It is because the ranking of the number of televiewers is equal to the ranking of viewership.

[0047]According to the above-mentioned embodiment, the information as which the

central apparatus 5 express the viewership ranking of the channel under viewing and listening for each broadcasting receiver 3 was searched for. At the following embodiment, each broadcasting receiver 3 searches for the viewership ranking of the channel under viewing and listening in a self-opportunity.

[0048]Drawing 6 shows the viewing-and-listening statistical information providing system of this embodiment. The viewing-and-listening statistical information providing system 50 of drawing 6 has the almost same composition as drawing 2. As compared with drawing 2, the viewership ranking judgment part 52 is added to the broadcasting receiver 3.

[0049]In drawing 6, the viewing-and-listening statistical information acquisition part 26 of the broadcasting receiver 3 receives the information showing the viewership of two or more channels from the central apparatus 5. This information is used as information showing the viewership ranking of two or more channels. That is, the viewership ranking judgment part 52 searches for the viewership ranking of each channel from the information on viewership.

[0050]The channel under viewing and listening is notified to the viewership ranking judgment part 52 from the viewing-and-listening broadcast offer-of-information part 24. The viewership ranking judgment part 52 searches for the viewership ranking of the channel under viewing and listening in response to this notice. The viewership ranking searched for is displayed on the display 12 according to a demand of the televiewer using the remote controller 20. Information as shown in drawing 5 is shown.

[0051]In the above, the embodiment of drawing 6 was described. According to this embodiment, the broadcasting receiver 3 was provided with the viewership of two or more channels from the central apparatus 10 as information showing the viewership ranking of these channels. For example, as long as the central apparatus 10 are the information showing the viewership ranking of two or more channels, they may provide other information. The central apparatus 10 may send the viewership ranking itself. The central apparatus 10 may send the information on the number of televiewers.

[0052]Next, some modifications in within the limits of this invention are explained.

[0053]According to this embodiment, the broadcasting receiver 3 received health broadcast. However, the broadcasting receiver 3 may receive other broadcasts, for example, terrestrial broadcasting, cable television broadcasting, or TV-with-Internet-functions broadcast. In this embodiment, the broadcasting receiver 3 and the central apparatus 5 were connected via the Internet. However, other arbitrary means of communication may be used. The statistical information-related means of communication of this invention may be the same as the means of

communication for broadcast. The central apparatus 5 may be united with a broadcast device.

[0054]According to this embodiment, the terminal unit for statistical information offer was built into the broadcasting receiver. A broadcasting receiver and a different body may be sufficient as this terminal unit. It is preferred for a terminal unit to have a presenting function of various kinds of program information (EPG) besides the presenting function of statistical information. And the central apparatus 5 may be united with the device which provides program information.

[0055]According to this embodiment, "broadcast under broadcast" and "broadcast under viewing and listening" were expressed using the channel. These may be expressed using a program. Providing each broadcasting receiver with program information (EPG) is known about this point. The program under viewing and listening can be specified using this program information. Then, the information, including a program name, program ID, etc., which specifies a program may be sent to central apparatus from a receiver using program information.

[0056]"Broadcast" may be expressed with the expression of those other than a channel and a program. For example, "broadcast" may be expressed using a program genre. A broadcasting receiver specifies the genre (for example, sport) of the program under viewing and listening based on program information (EPG). This genre is sent to central apparatus as viewing-and-listening broadcast information. Central apparatus search for information, including the viewership of each genre, etc.

[0057]The same kind of information does not need to be consistently used about "broadcast." For example, a "channel" is transmitted to central apparatus. Central apparatus ask for the viewership of each channel, and send it to a terminal unit. A terminal unit displays the viewership and/or viewership ranking of a program based on this information. At this time, program information (EPG) is used useful as information which matches a channel and a program.

[0058]As for "viewership ranking", the viewership of which channel shows a number of [ the ] as mentioned above. In the range of this invention, the composition which provides at least televiewer number sequence is also included in the composition which provides viewership ranking. It is because both are substantially the same. For example, the system of this invention may put two or more channels in order in order of the number of televiewers, and may search for the ranking of the channel under viewing and listening.

[0059]Reference of drawing 7 does not need to express "viewership ranking" with the number of "what position." For example, viewership ranking is expressed with three

ranks, such as "quantity", "inside", and [ "low" ]. In drawing 7, the rank corresponding to viewership ranking is displayed on a screen.

[0060]At this embodiment, a televiewer is provided with the statistical information on the present broadcast in real time as mentioned above. However, in an above-mentioned embodiment, a suitable, comparatively short interval (for example, 10 minutes) is set, and viewing-and-listening broadcast information (channel) is collected periodically. Central apparatus generate the statistical information acquired using this collected information, and return it to a broadcasting receiver. Therefore, it is not an offer of information of real time strictly. However, the offer of information of the grade which can fully be said to be real time in the viewpoint of getting to know the statistical information on the program under viewing and listening is possible. Compared with the information on the past which comes to hand especially on and after the next day like before, this invention can fully realize a real time offer of information.

[0061]Viewing-and-listening statistical information does not need to be displayed on a display. A televiewer may be shown using another means. For example, it may be outputted from a loudspeaker. It may be displayed on a display other than the display for broadcast outputs, for example, the display of a remote controller.

[0062]In the above, the suitable embodiment of this invention was described. According to this invention, a televiewer can be provided with the viewing-and-listening statistical information concerning the broadcast under broadcast as mentioned above. According to this invention, a televiewer can obtain the new interesting information of the viewership statistical information of broadcast under broadcast to the televiewer having obtained only the viewership statistical information of the past broadcast conventionally.

[0063]Since only the viewing-and-listening statistical information of the past broadcast is able to be obtained conventionally, the reputation of another broadcast may get to know a televiewer well later rather than the broadcast to which he viewed and listened. At this time, a televiewer may think that what was necessary was just to have watched another program. On the other hand, since the televiewer can acquire the statistical information on broadcast under broadcast according to this invention, it is not necessary to overlook reputable broadcast.

[0064]Especially the suitable mode of this invention provides the information showing the viewership ranking of the broadcast to which each televiewer is viewing and listening. A televiewer is provided with unprecedented interesting information [ say / the viewership ranking of the broadcast which he is watching ]. The televiewer can

grasp easily how much the reputation of the broadcast which he is watching is in two or more broadcasts which are under broadcast. Therefore, the televiewer can avoid overlooking of reputable broadcast easily.

[0065]As mentioned above, the viewership ranking of broadcast under viewing and listening may be searched for with central apparatus (drawing 4), and may be searched for with a terminal unit (drawing 6). Since the former should just present as it is the information received in the terminal unit, the burden of processing with a terminal unit is considered to be advantageous with few points. Since the latter is good without providing the information that it is individual for each terminal unit, with central apparatus, the burden of central apparatus is considered to be advantageous with few points.

[0066]Another embodiment of this invention obtains from the outside the information as which central apparatus express the viewership ranking of broadcast under broadcast. The viewership ranking itself may be obtained, viewership may be obtained and the number of televiewers may be obtained. When viewership or the number of televiewers comes to hand, viewership ranking is searched for from the information which came to hand. At least televiewer number sequence may be called for as viewership ranking as mentioned above. And from each terminal unit, central apparatus obtain the information showing the broadcast under viewing and listening, search for the viewership ranking of broadcast under the viewing and listening, and return it to a terminal unit. This gestalt does not need to search for viewership ranking from the information collected from the terminal unit. And the advantage of this invention by showing a televiewer the viewership ranking of the broadcast to which each televiewer is viewing and listening also according to this gestalt is acquired.

[0067]Another embodiment of this invention obtains from the outside the information as which a terminal unit expresses the viewership ranking of broadcast under broadcast. The viewership ranking itself may be obtained, viewership may be obtained and the number of televiewers may be obtained. A terminal unit searches for the viewership ranking of the broadcast to which a televiewer is viewing and listening from the information which came to hand. A televiewer is shown the information searched for. In this gestalt, a terminal unit may obtain information from anywhere in external. What a terminal unit obtains may not be the information generated based on the information which he sent. That is, it may not be the viewership pertinent information acquired from the channel information which he sent. And the advantage of this invention by showing a televiewer the viewership ranking of the broadcast to which each televiewer is viewing and listening also according to this gestalt is acquired.

[0068]Another gestalt of this invention is a program which realizes the function explained to central apparatus by the above-mentioned embodiment. This program is memorized, incorporated and executed by the computer and, thereby, the central apparatus of this invention are constituted.

[0069]Another gestalt of this invention is a program which realizes the function explained to the terminal unit by the above-mentioned embodiment. This program is memorized, incorporated and executed by the computer and, thereby, the terminal unit of this invention is constituted. The program of this invention may be suitably provided by communication. In the system which provides program information (EPG), offer, now \*\* of the program of this invention are good for the program information providing device by the side of a televiewer.

[0070]"Attribution information" This invention provides the viewing-and-listening statistical information according to the attribution information of the televiewer under viewing and listening preferably again. Attributes are age, sex, an address, a hobby, and family structure, for example. The viewing-and-listening statistical information which suits the combination of two or more attributes may be provided.

[0071]The embodiment which performs the offer of information according to an attribute by the system of above-mentioned drawing 2 is described. Here, age is considered as an attribute. The central apparatus 5 have memorized the age of the televiewer of each broadcasting receiver 3 beforehand. Or the information showing a televiewer's age is sent to the central apparatus 5 from the center communications department 22 with the channel under viewing and listening.

[0072]In the central apparatus 5, the viewing-and-listening statistical information generation part 34 searches for the viewing-and-listening statistical information according to an attribute. According to this embodiment, the viewership of each broadcast is called for according to ages, such as his teens and his twenties.

[0073]The terminal communications department 30 is used for the viewing-and-listening statistical information providing part 36 of the central apparatus 5, and it sends viewership information to each broadcasting receiver 3. At this time, the information according to the age of the televiewer of each broadcasting receiver 3 is sent. For example, when the age of the televiewer of a certain receiver 3 is 40 years old, the viewership of the televiewer in his 40's is sent. A televiewer is provided with this information. Therefore, in drawing 3, the viewership of each channel between the televiewers in his 40's is displayed.

[0074]Or the central apparatus 5 may send two or more generations' viewership to the broadcasting receiver 3 collectively. The broadcasting receiver 3 acquires the

information showing a televiewer's age. This age information may be inputted by the televiewer from the remote controller 20. The information on age may be memorized beforehand. And out of the information which came to hand from the central apparatus 5, in the information corresponding to a televiewer's age, and the above-mentioned example, the broadcasting receiver 3 extracts the viewership of his 40's, and provides a televiewer with it. Also in this case, in drawing 3, the viewership of each channel between the televiewers in his 40's is displayed.

[0075] Thus, selection of the information according to an attribute may be performed by a receiver end. This point is the same also about following drawing 4 and the system of drawing 6.

[0076] This system may ask for the viewership of the broadcast for children, and the viewership of the broadcast for adults, and may provide a televiewer with them. If a televiewer is 40 years old (adult), the viewership of the broadcast for adults is provided. Like this example, the viewing-and-listening characteristic information of the broadcast corresponding to a televiewer's attribute may be provided as information according to an attribute by this invention.

[0077] The information according to an attribute is suitably provided also by the system of above-mentioned drawing 4. In this case, the viewing-and-listening statistical information generation part 42 searches for the viewership ranking according to an attribute. According to this embodiment, the viewership ranking of each channel is searched for according to age, such as his teens and his twenties. And the viewing-and-listening statistical information providing part 36 sends the viewership ranking corresponding to a televiewer's age to the broadcasting receiver 3 via the terminal communications department 30. For example, while a 40-year-old televiewer is viewing and listening to the channel X with a certain broadcasting receiver 3, this information is already acquired by the viewing-and-listening broadcast information acquisition section 32. Based on this information, the viewership ranking of the channel X between the televiewers in his 40's is searched for, and it is sent to the broadcasting receiver 3, and is provided for a televiewer. Therefore, in drawing 5, the viewership ranking between the televiewers in his 40's is displayed.

[0078] In this embodiment, the viewership ranking in the inside of the broadcast for children and the viewership ranking in the inside of the broadcast for adults may be searched for, and it may be provided for a televiewer. If a televiewer is 40 years old (adult), the viewership ranking of the broadcast for adults is provided. Thus, in this invention, the viewership ranking in the inside of the broadcast corresponding to a televiewer's attribute may be provided. This point is the same also in the system of

the following drawing 6.

[0079]The information according to an attribute is further provided suitably also by the system of drawing 6. Application of the processing about an attribute may be the same as that of the system of drawing 4. The viewership ranking according to age is searched for in the viewing-and-listening statistical information generation part 34. And all the channel viewership ranking in a televiewer's age is sent to the broadcasting receiver 3. By the broadcasting receiver 3 side, the viewership ranking corresponding to the channel under viewing and listening is chosen, and it is provided for a televiewer.

[0080]As mentioned above, according to this invention, still more interesting information can be provided by providing the information according to an attribute. The televiewer does not need to overlook broadcast with a sufficient reputation for televiewers with the same attribute as himself, therefore can avoid overlooking of useful broadcast more certainly for himself.

[0081]"Hysteresis information" The system of this invention provides the viewing-and-listening statistical information according to the old viewing history of the televiewer under viewing and listening preferably again.

[0082]The embodiment which performs the offer of information according to a viewing history by the system of above-mentioned drawing 2 is described. The central apparatus 5 accumulate the information on the viewing history of each broadcasting receiver 3. According to this embodiment, the channel information acquired by the viewing-and-listening broadcast information acquisition section 32 should just be accumulated as a viewing history. Using this information, the information on to which channel the televiewer viewed and listened when is acquired.

[0083]And the central apparatus 5 provide suitable viewership information which is different for every televiewer based on hysteresis information. According to this embodiment, the viewership information on a genre suitable as viewership based on hysteresis information is provided. The central apparatus 5 ask for the broadcasting genre which a televiewer looks at by the highest frequency from the hysteresis information of each broadcasting receiver 3. And the viewership of broadcast of the genre is sent to the broadcasting receiver 3 by the viewing-and-listening statistical information providing part 36 via the terminal communications department 30. For example, when a televiewer watches a sportscast by the highest frequency, the viewership of each channel while broadcasting a sport is sent to the broadcasting receiver 3.

[0084]Or each broadcasting receiver 3 as a terminal unit may accumulate a viewing history. Each broadcasting receiver 3 provides a televiewer with the information

selected based on the viewing history out of the information provided from the central apparatus 5. In the above-mentioned example, the broadcasting receiver 3 is provided with the viewership information on broadcast of various genres from the central apparatus 5. And with the broadcasting receiver 3, out of the provided information, the viewership information on a sportscast is chosen and it is provided for a televiewer.

[0085] Thus, selection of the information according to a history may be performed by a receiver end. This point is the same also about following drawing 4 and the system of drawing 6.

[0086] In this embodiment, viewership may be called for according to a genre. For example, the viewership of each channel in the range of two or more sportscast channels which are under broadcast is called for. A televiewer is provided with this information.

[0087] The offer of information according to a history is applied suitably also for the embodiment which provides viewership ranking. For example, in the system of drawing 4, the central apparatus 5 specifies the broadcasting genre which the televiewer looks at by the highest frequency based on a televiewer's viewing history. Suppose that this broadcasting genre is a sport. The channel X to which a televiewer is viewing and listening is also carried out to a sportscast being under broadcast. At this time, the central apparatus 5 searches for the viewership ranking in the range of all the sportscasts under broadcast of the channel X under viewing and listening, and provides a televiewer with it. Also in the system of drawing 6, the same information is applied suitably. In this case, the central apparatus 40 sends the information showing the viewership ranking of each sportscast in the range of all the sportscasts under broadcast to the broadcasting receiver 3. The channel under viewing and listening is specified with the broadcasting receiver 3, and the viewership ranking corresponding to the channel is chosen.

[0088] As mentioned above, according to this invention, still more interesting information can be provided by providing the information according to a viewing history. The televiewer does not need to overlook what has a good reputation in the broadcast which suited its viewing history, for example, broadcast of the genre which he often sees, therefore can avoid overlooking of useful broadcast more certainly for himself.

[0089]

[Effect of the Invention] According to this invention, a televiewer can grasp the statistical information on broadcast viewing and listening in real time. According to this invention, since the information showing the viewership ranking of the broadcast

to which each televiewer is viewing and listening is provided, a televiewer can grasp statistical positioning of the broadcast which he is watching.

2.\*\*\*\* shows the word which can not be translated.

3.In the drawings, any words are not translated.

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## DESCRIPTION OF DRAWINGS

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[Brief Description of the Drawings]

[Drawing 1]It is a figure showing the overall composition of the viewing-and-listening statistical information providing system in the embodiment of this invention.

[Drawing 2]It is a functional block diagram of the system of drawing 1.

[Drawing 3]It is a figure showing the example of the viewing-and-listening statistical information provided by the system of drawing 1.

[Drawing 4]It is a functional block diagram of another embodiment of this invention.

[Drawing 5]It is a figure showing the example of the real-time viewership which is the viewing-and-listening statistical information provided by the system of drawing 4.

[Drawing 6]It is a functional block diagram of another embodiment of this invention.

[Drawing 7]It is a figure showing the example of the viewership precedence information using a rank.

[Description of Notations]

1 Viewing-and-listening statistical information providing system

3 Broadcasting receiver

5 Central apparatus  
22 Center communications department  
24 Viewing-and-listening broadcast offer-of-information part  
26 Viewing-and-listening statistical information acquisition part  
30 Terminal communications department  
32 Viewing-and-listening broadcast information acquisition section  
34 Viewing-and-listening statistical information generation part  
36 Viewing-and-listening statistical information providing part  
40 Viewing-and-listening statistical information providing system  
42 Viewing-and-listening statistical information generation part  
50 Viewing-and-listening statistical information providing system  
52 Viewership ranking judgment part